

FIG. 1A

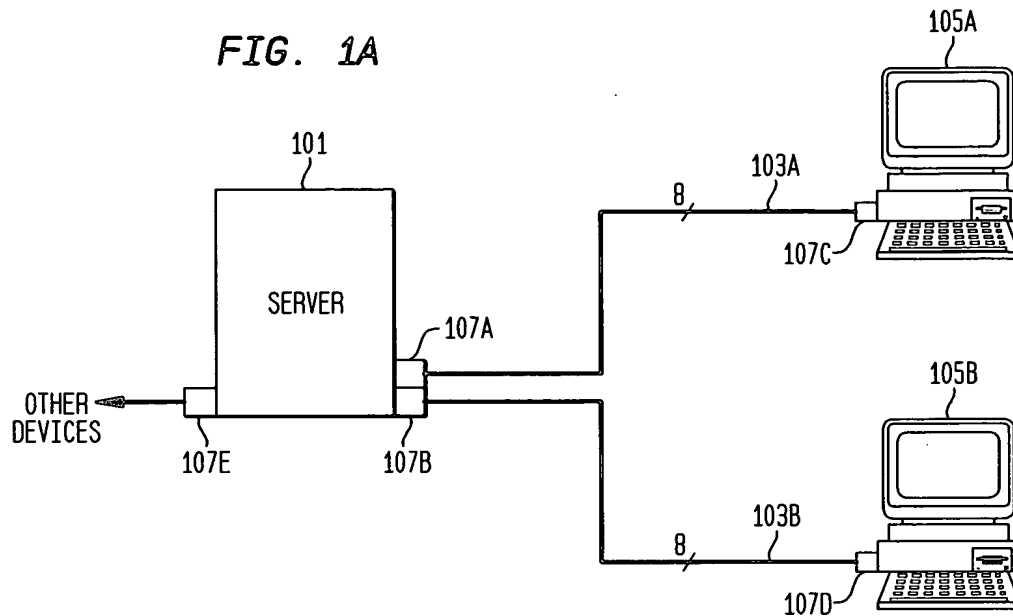
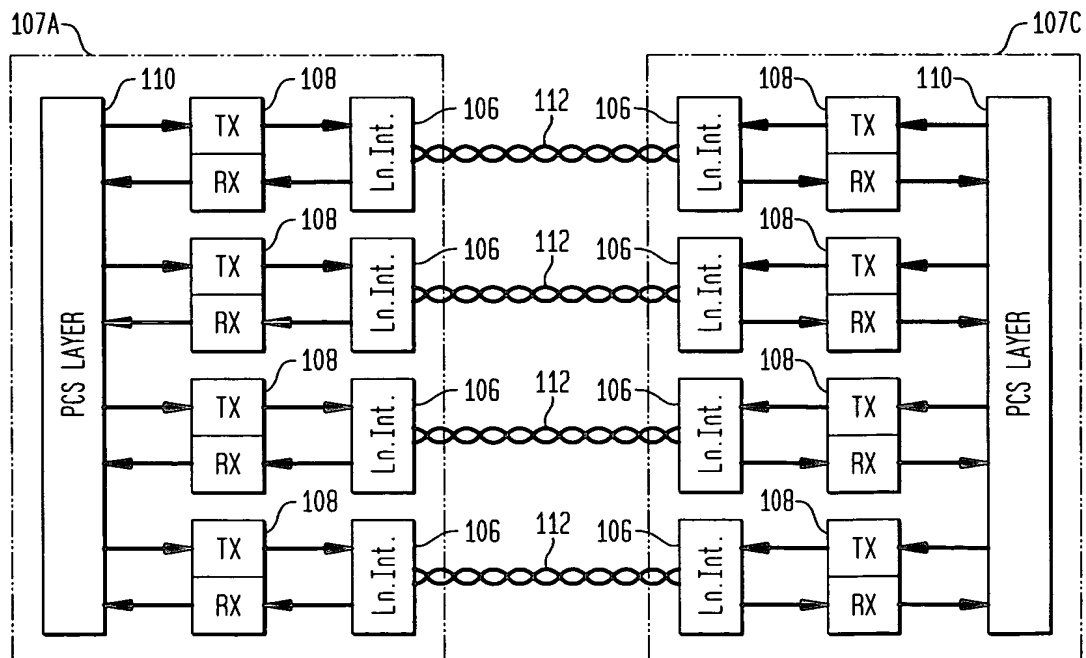


FIG. 1B



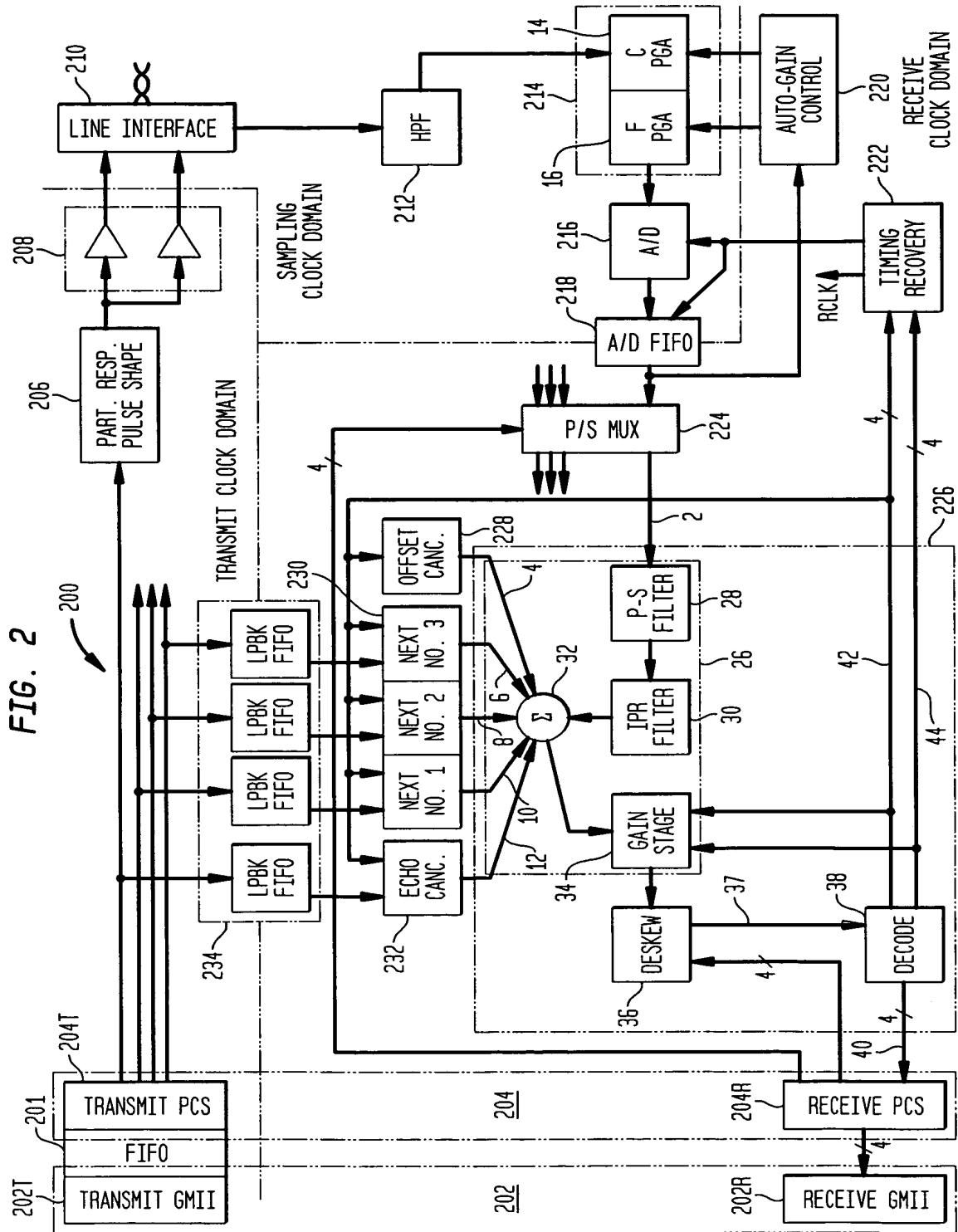


FIG. 3

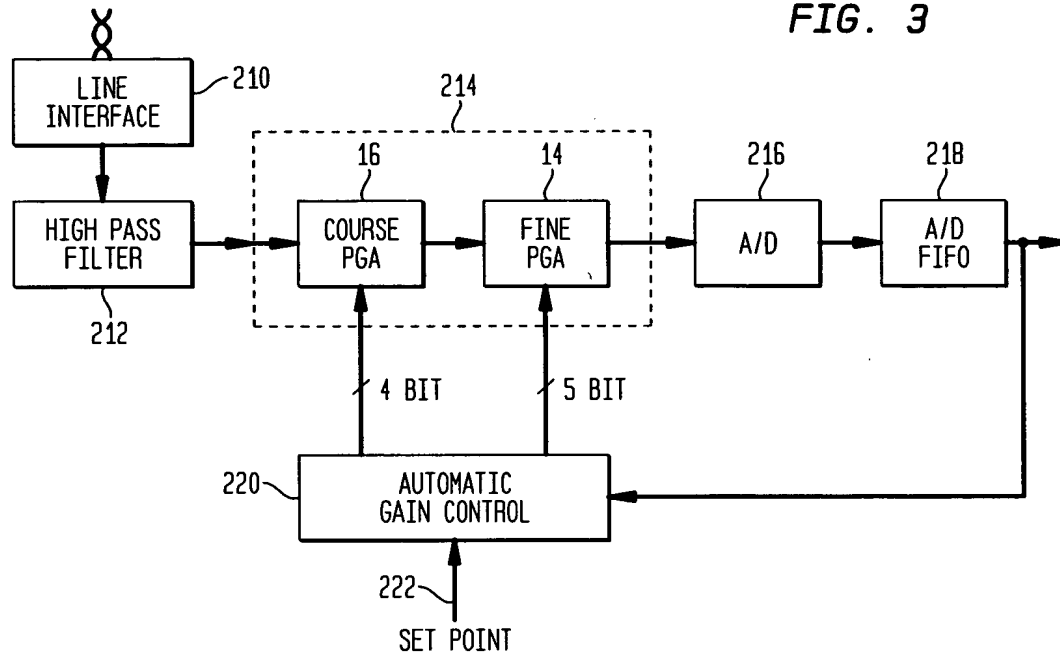
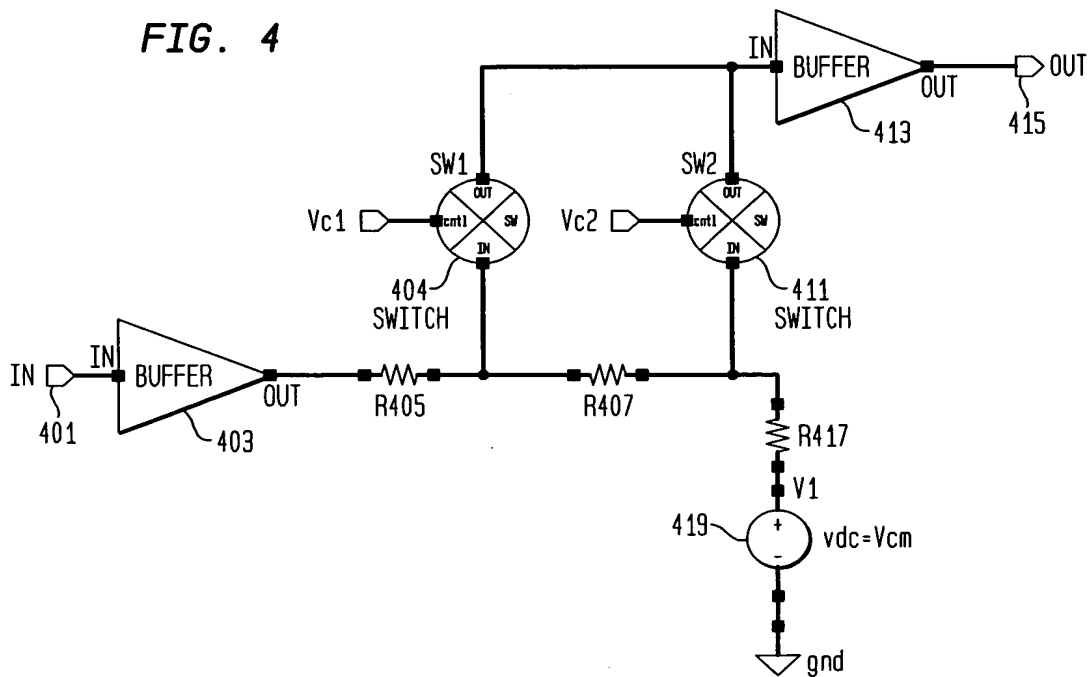
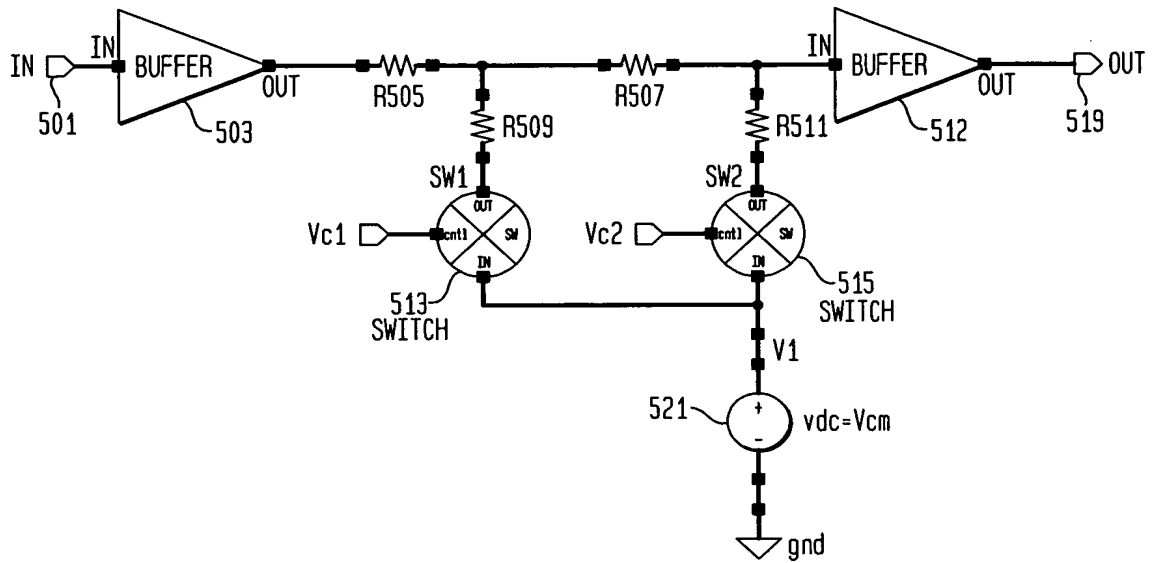


FIG. 4



**FIG. 5**



**FIG. 6**

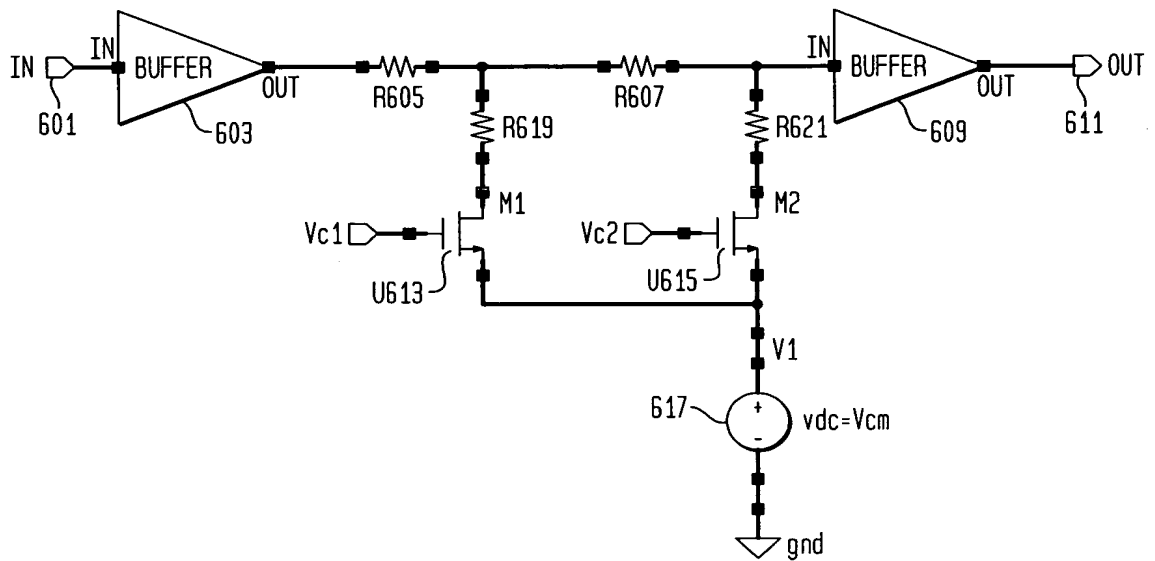


FIG. 7

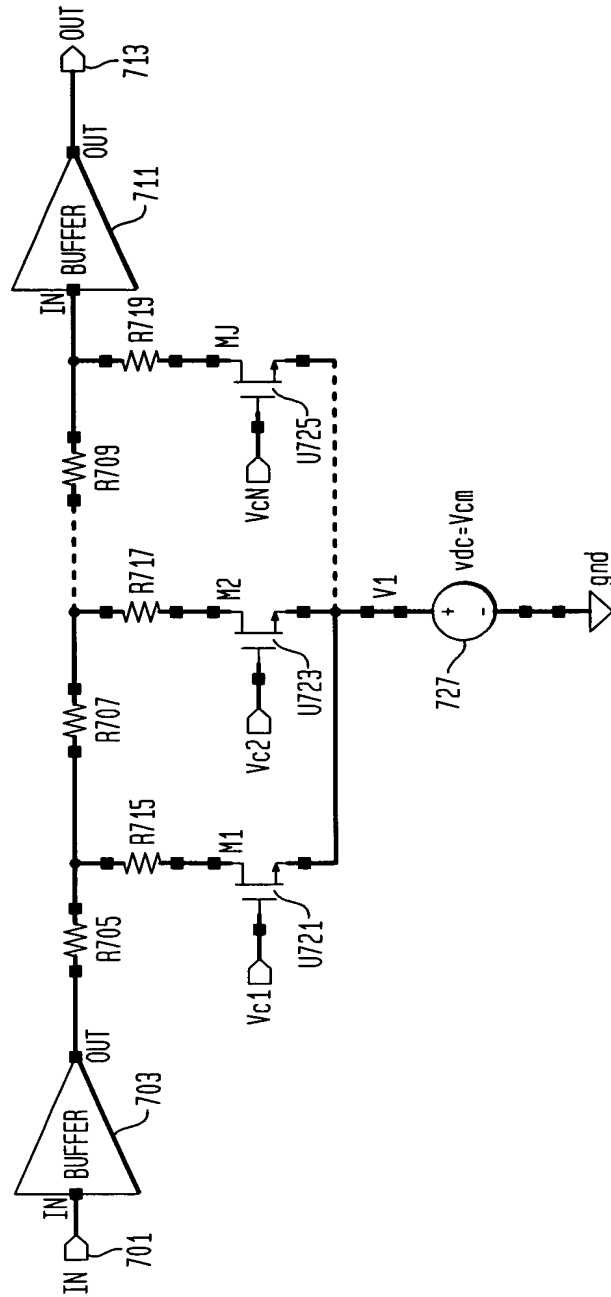
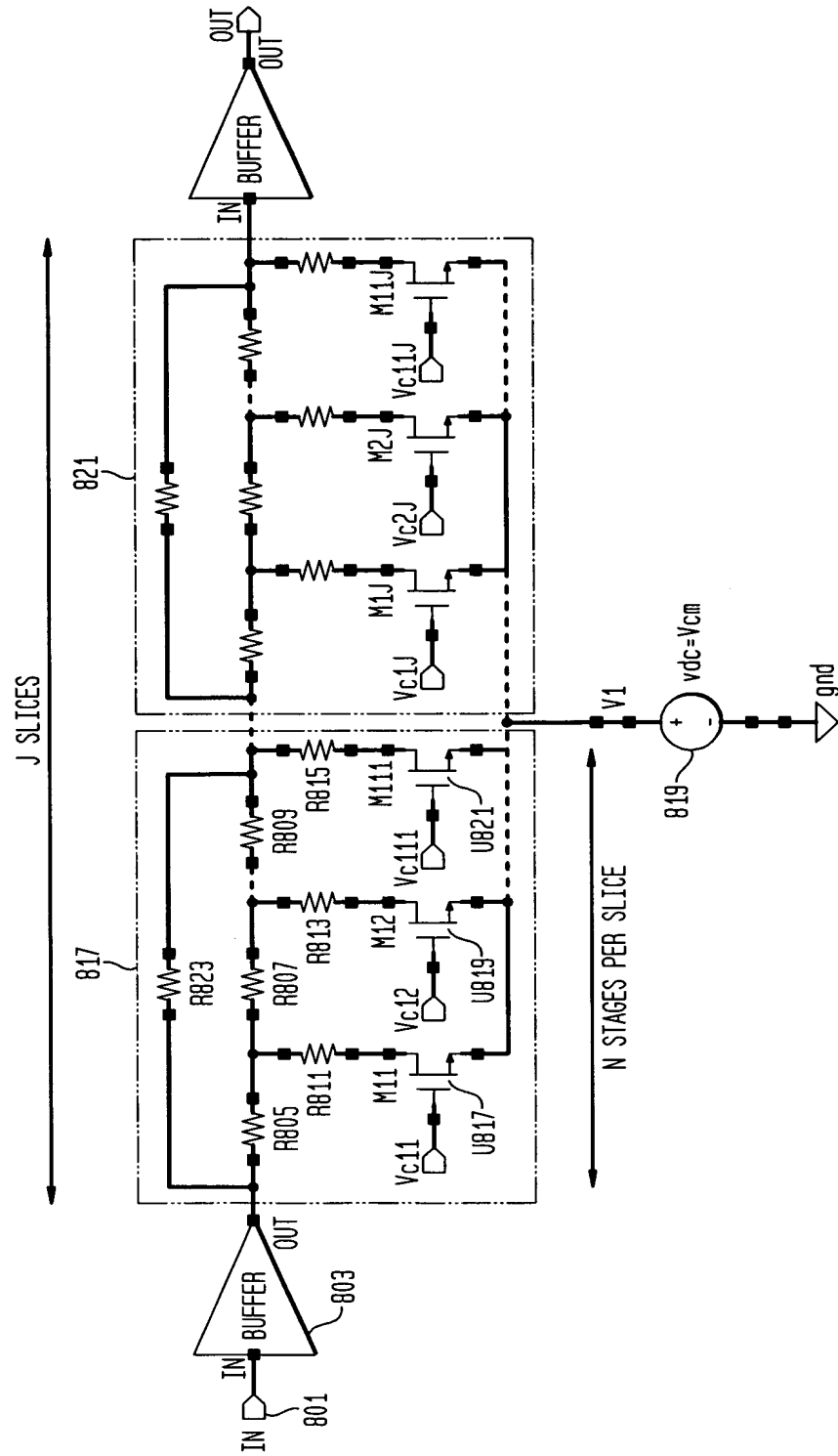
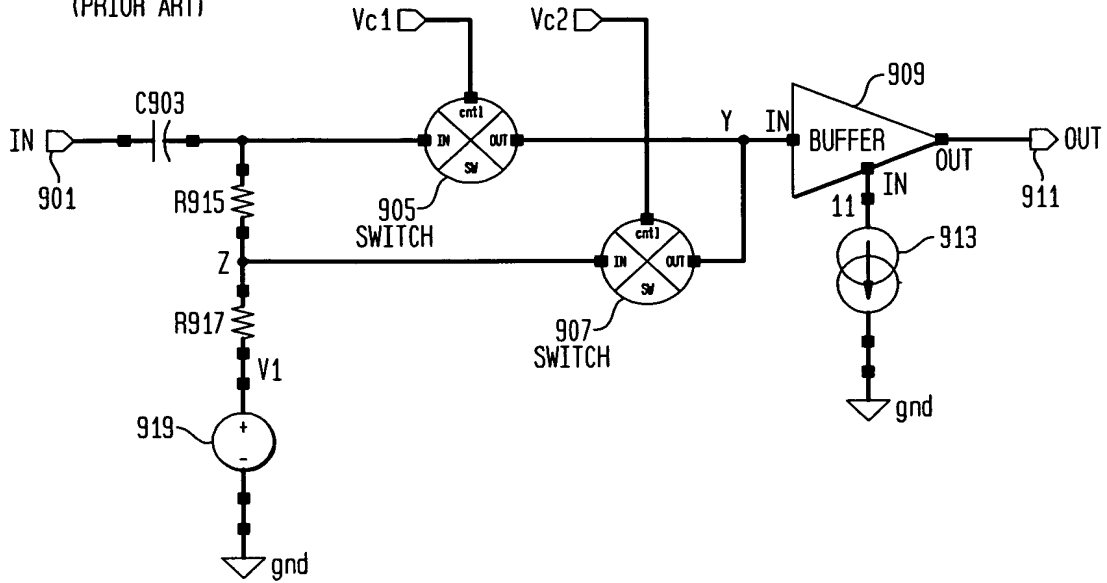


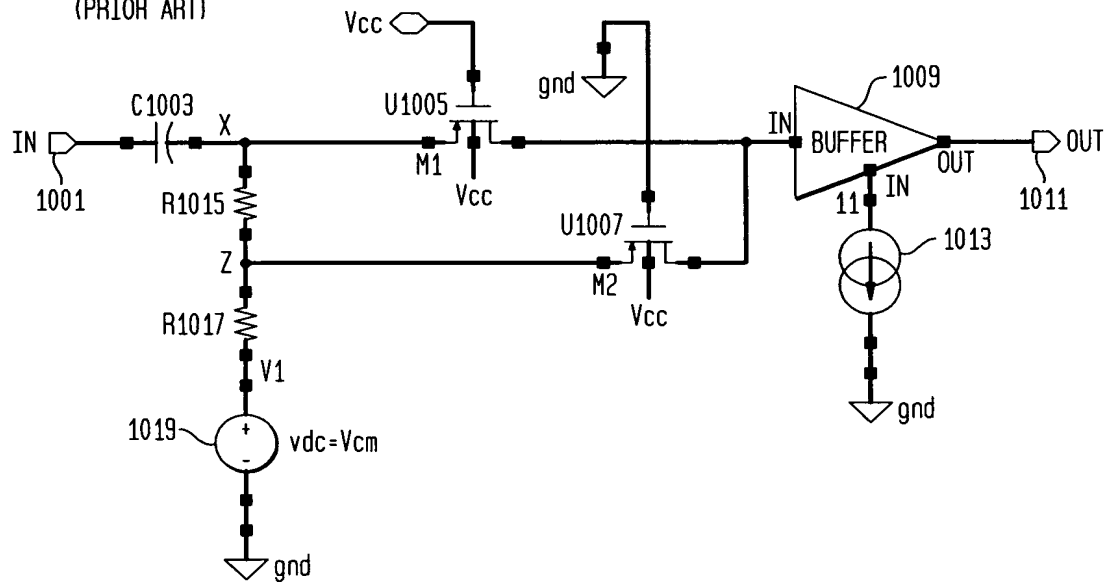
FIG. 8

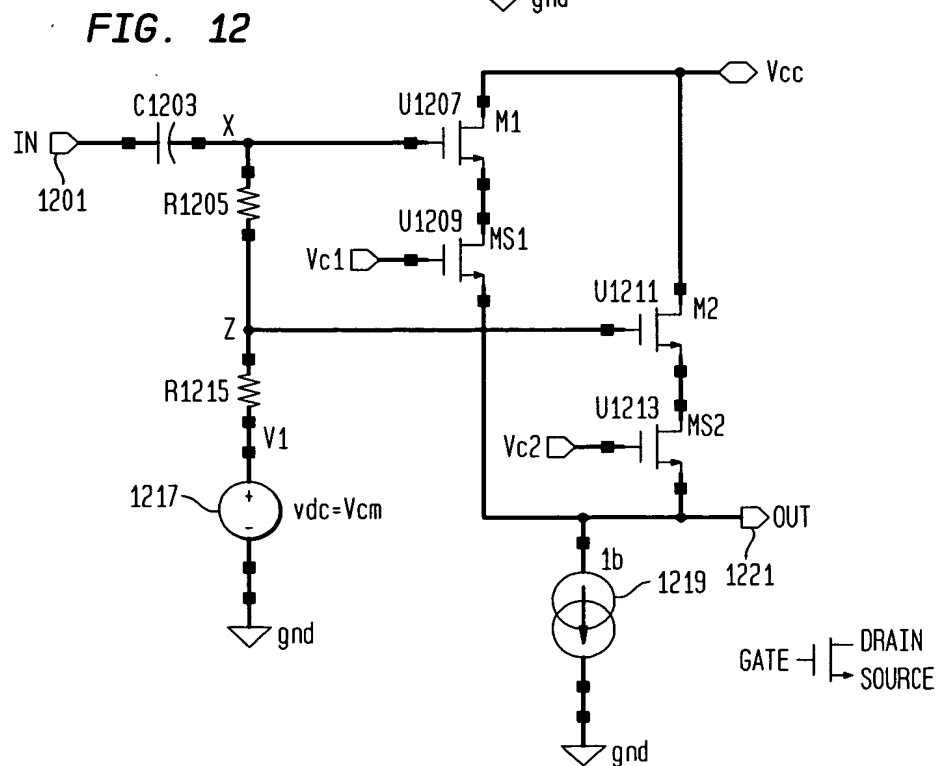
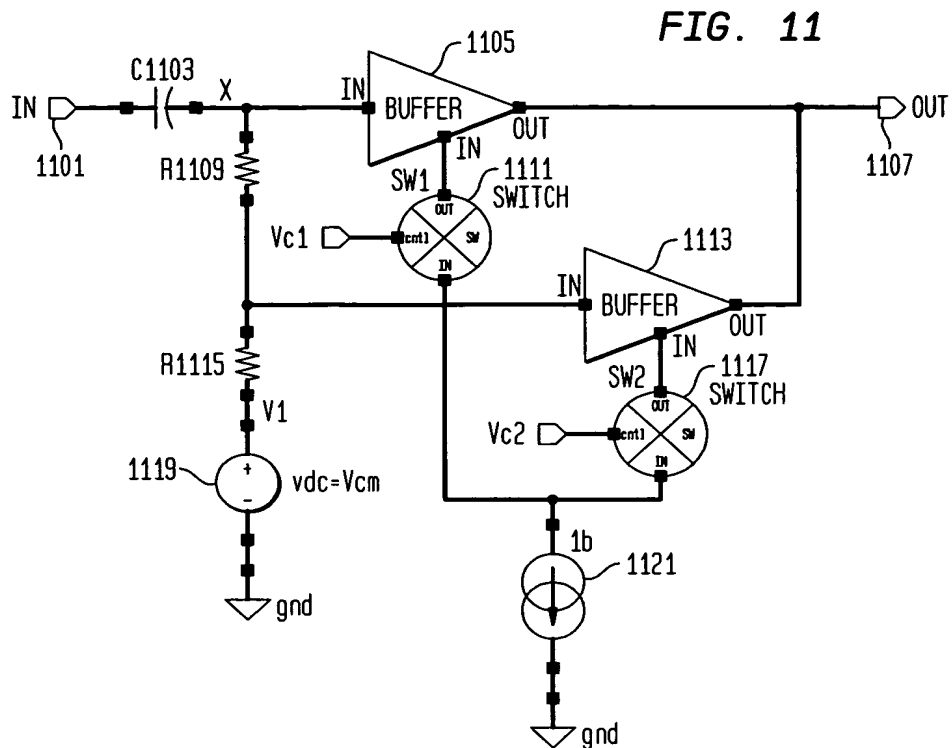


**FIG. 9**  
 (PRIOR ART)



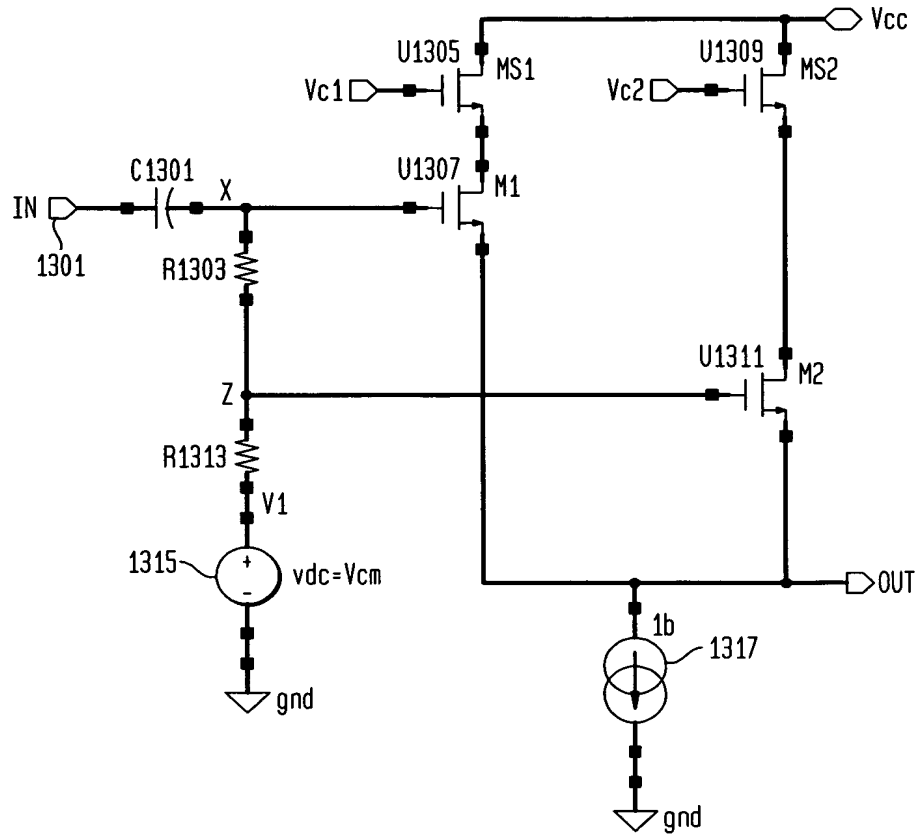
**FIG. 10**  
 (PRIOR ART)

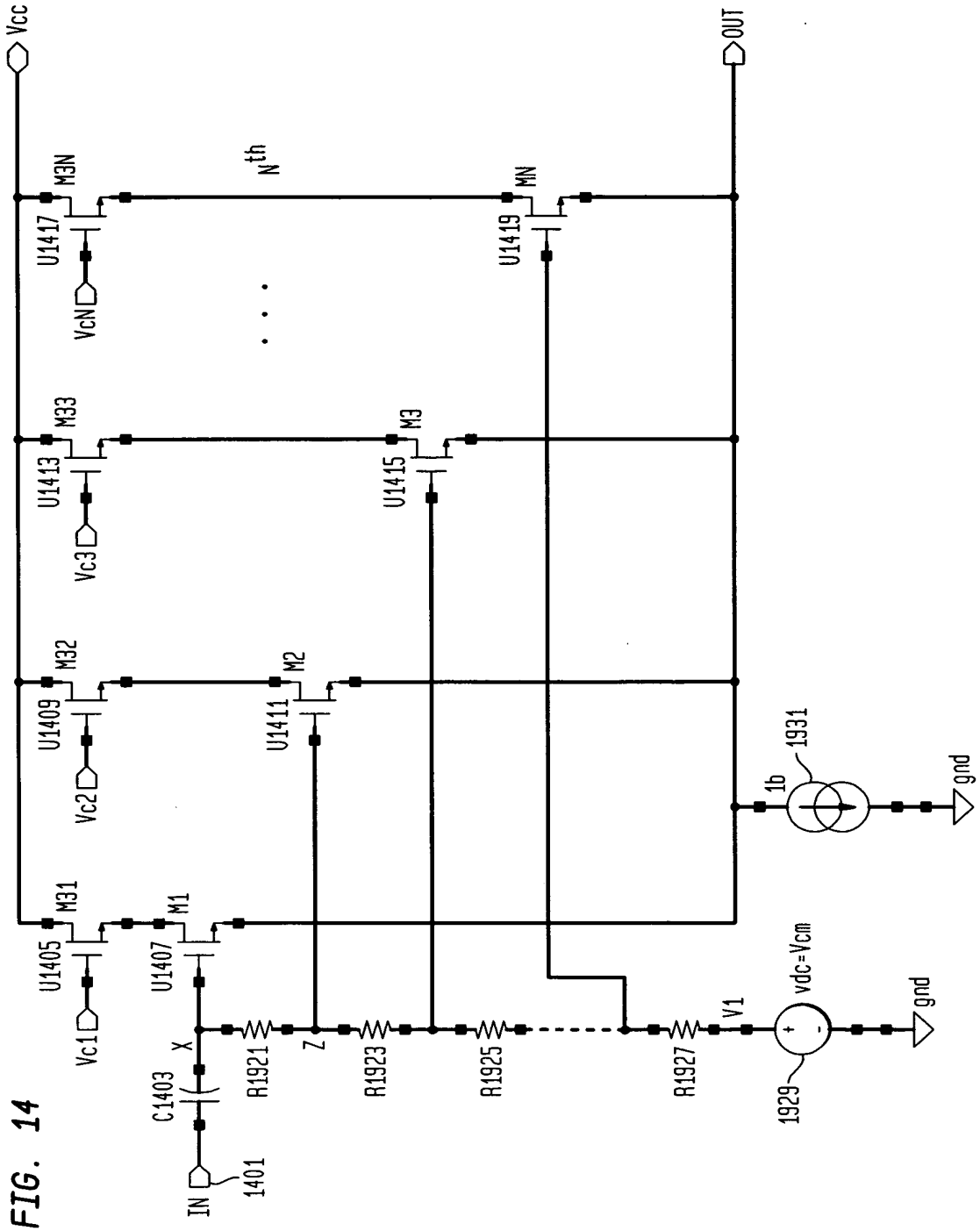




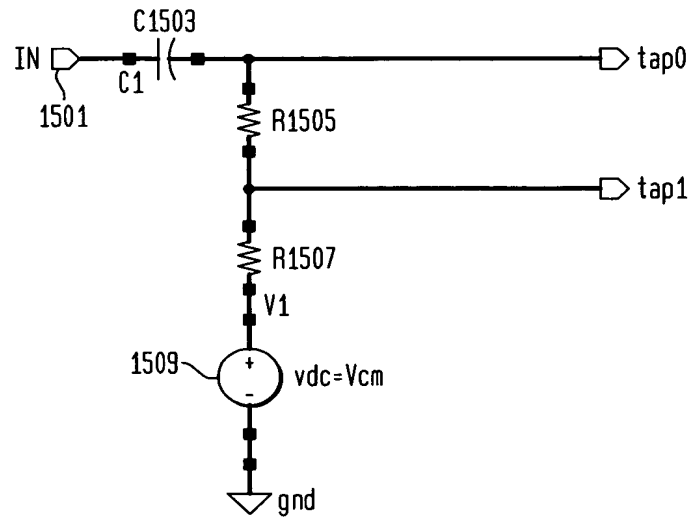


**FIG. 13**

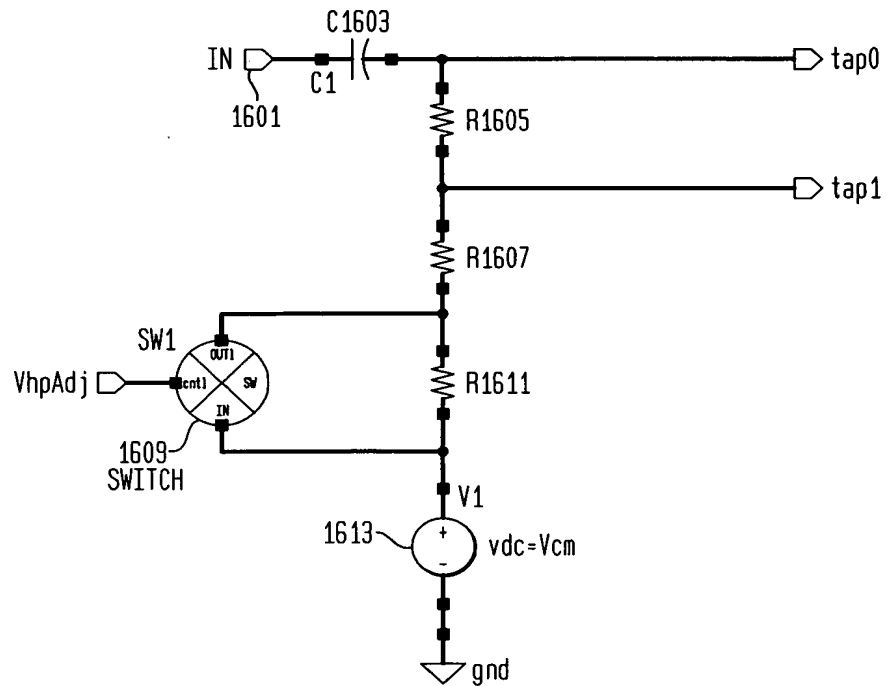




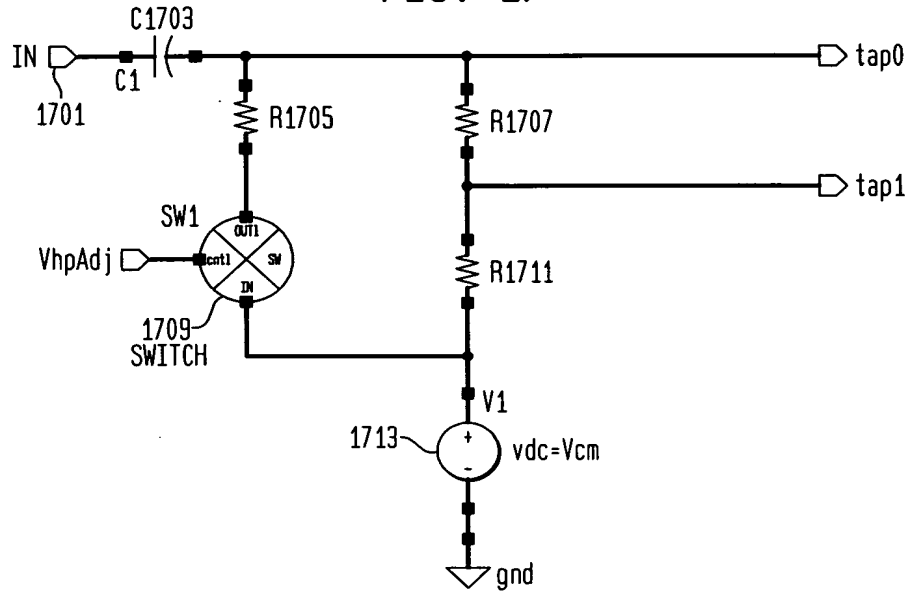
**FIG. 15**



**FIG. 16**



**FIG. 17**



**FIG. 18**

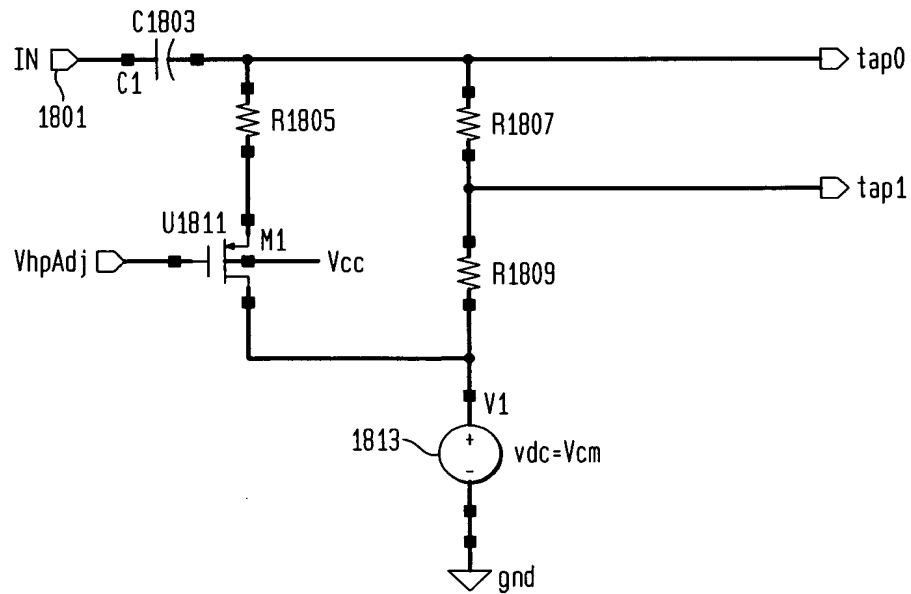
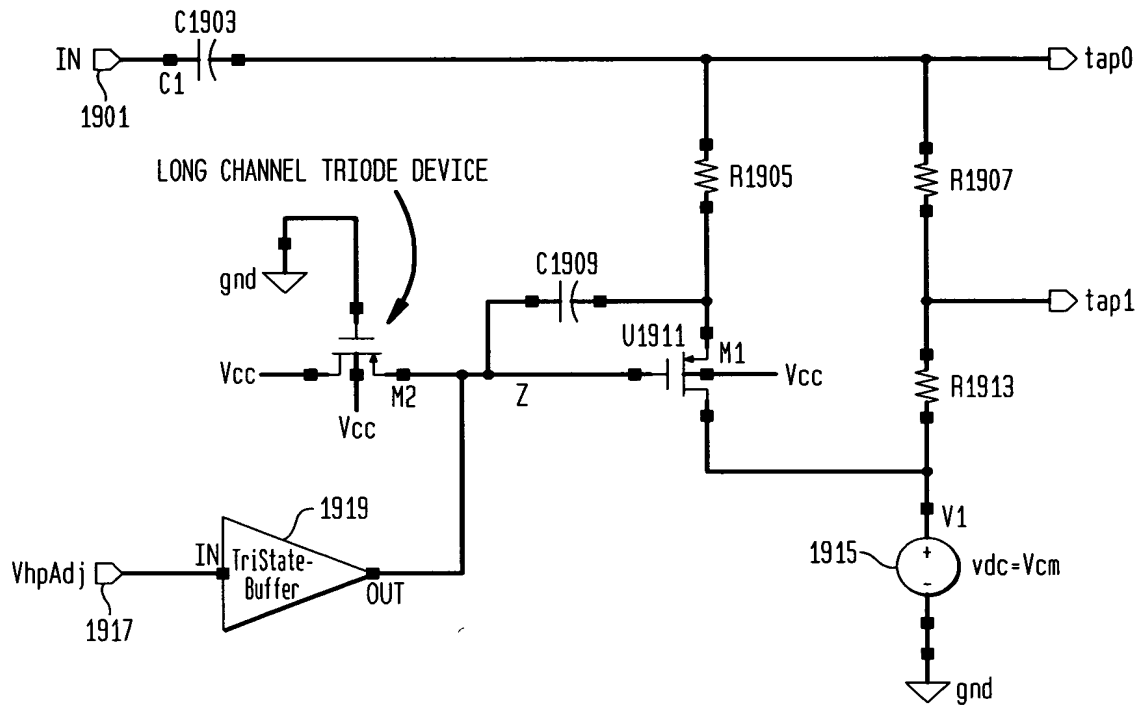
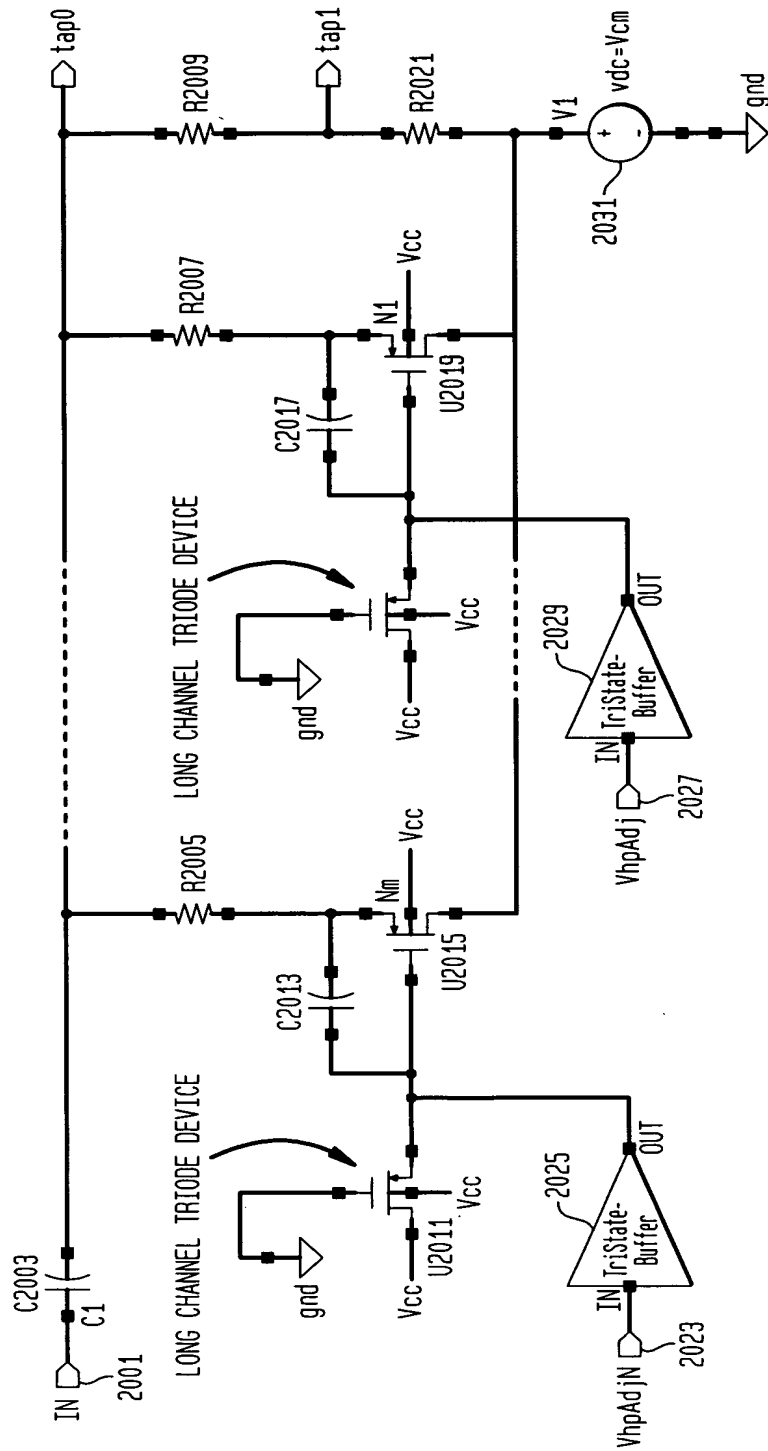


FIG. 19



[illegible]

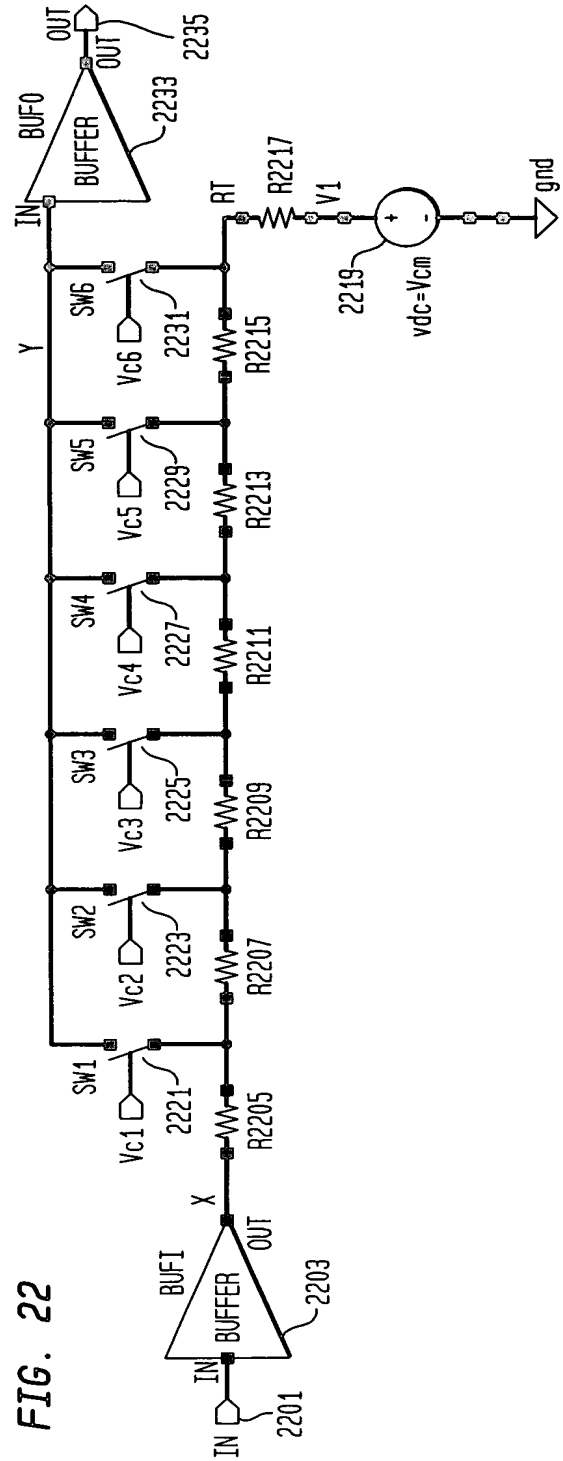
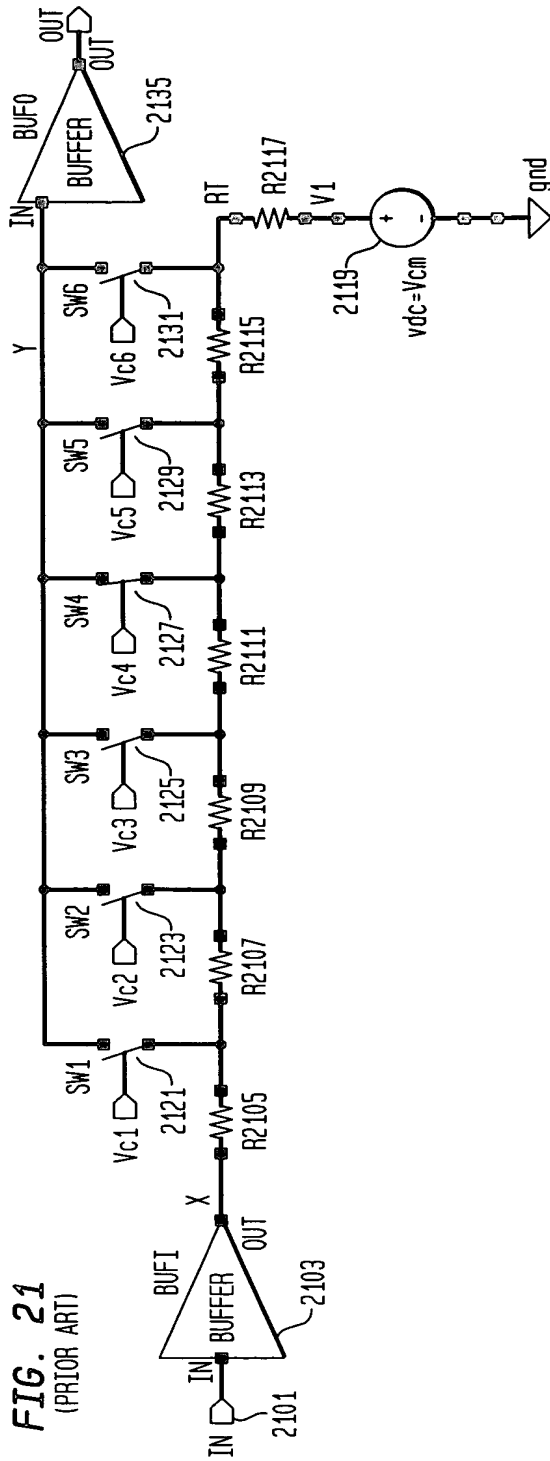


FIG. 23

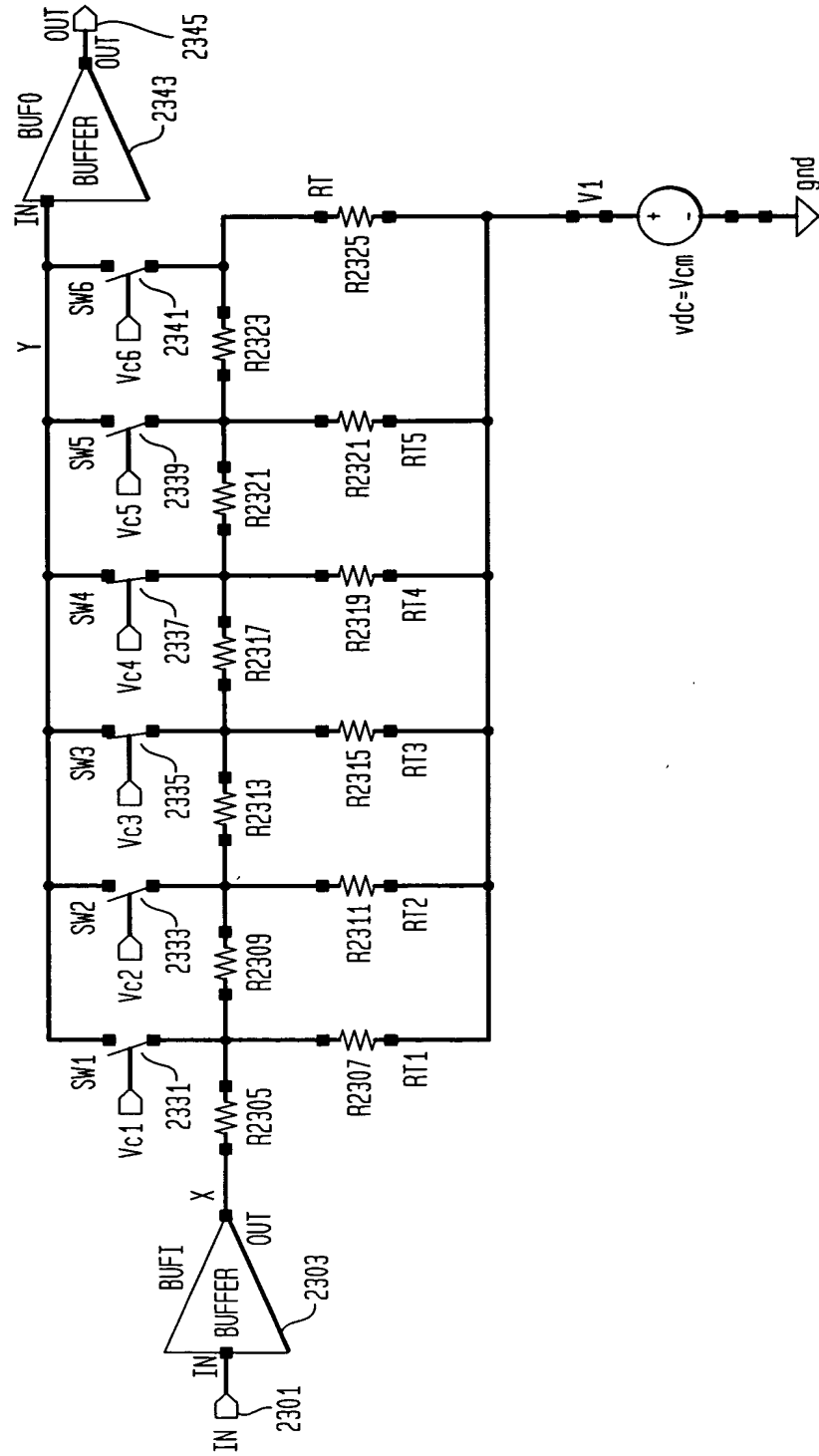




FIG. 24

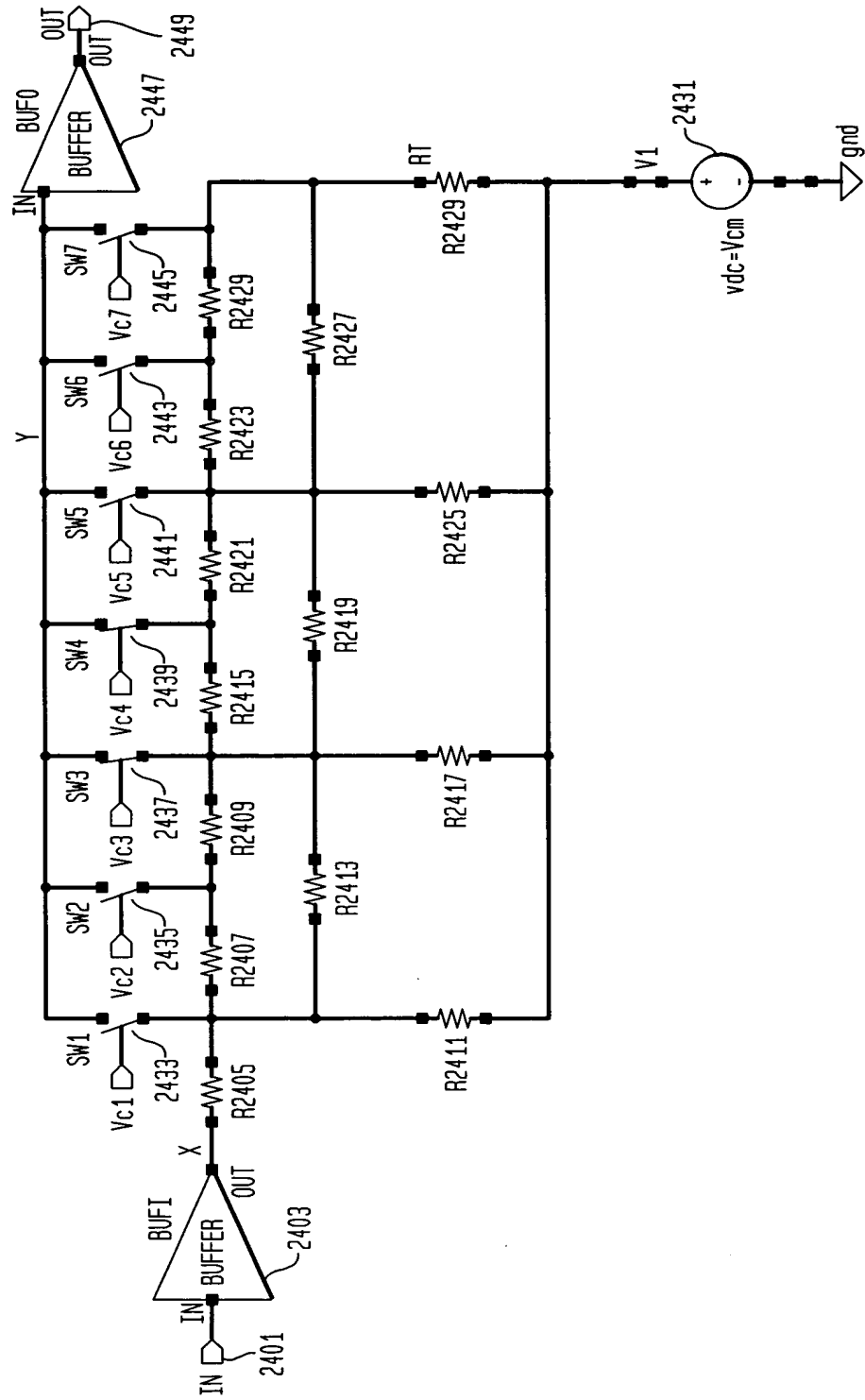


FIG. 25

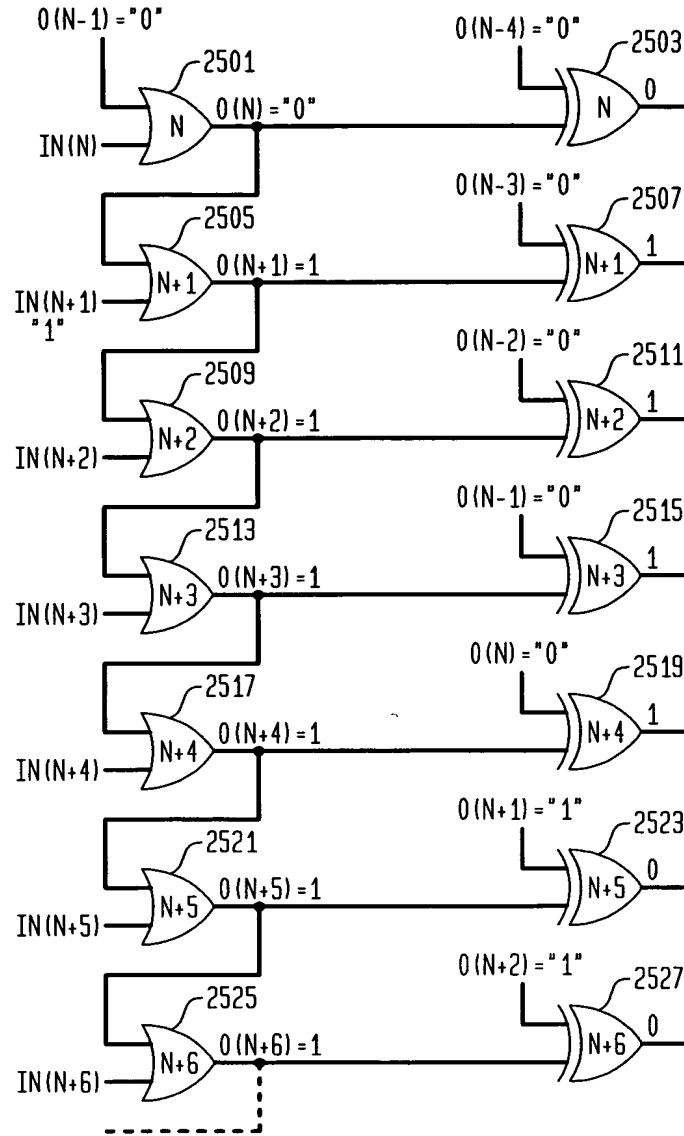
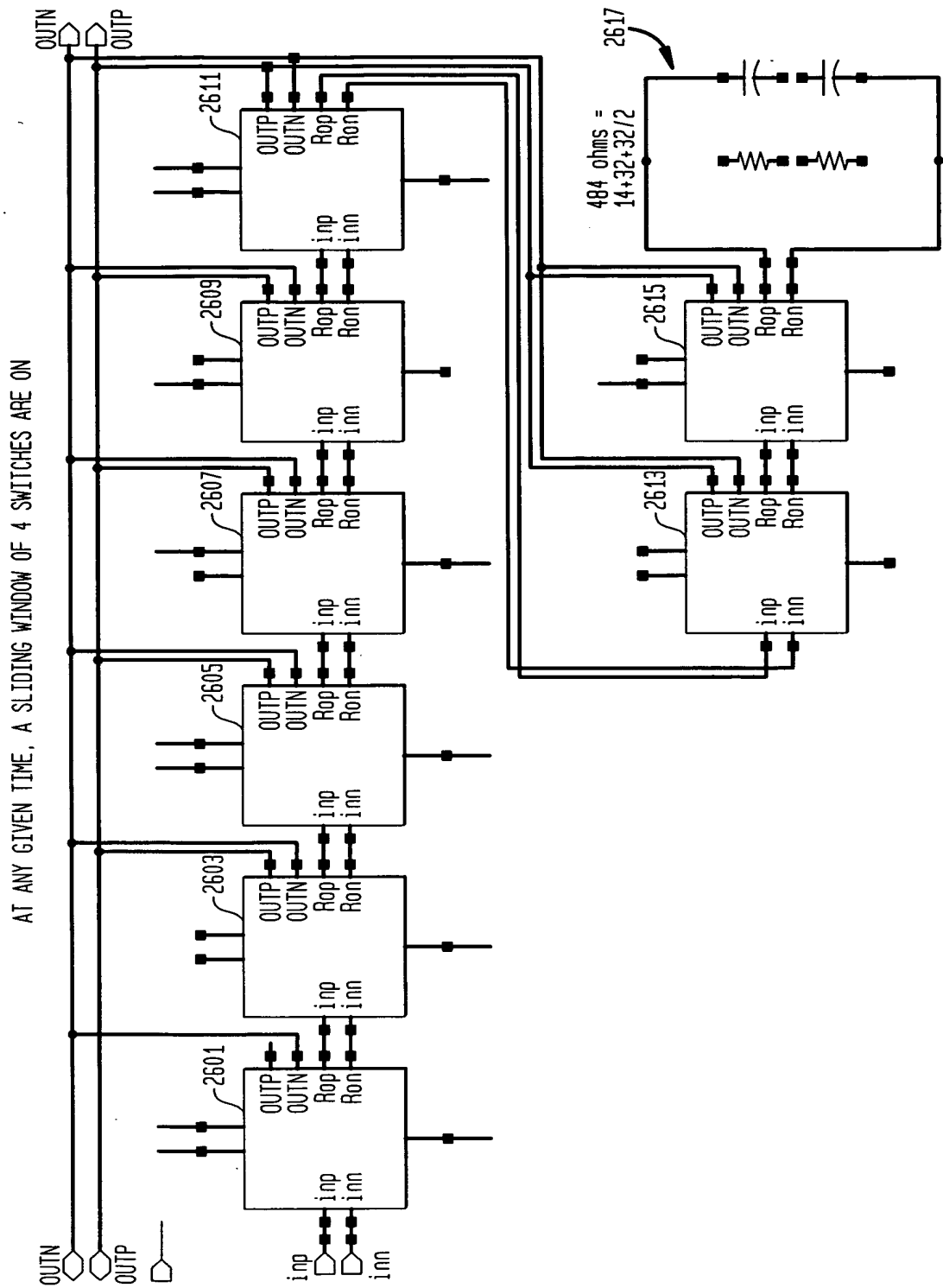


FIG. 26



SWITCH SIZING:  
 N:  $w=1.8\mu$ ,  $L=0.25\mu$ ,  $m=2$   
 P:  $w=2\mu$ ,  $L=0.25\mu$ ,  $m=8$

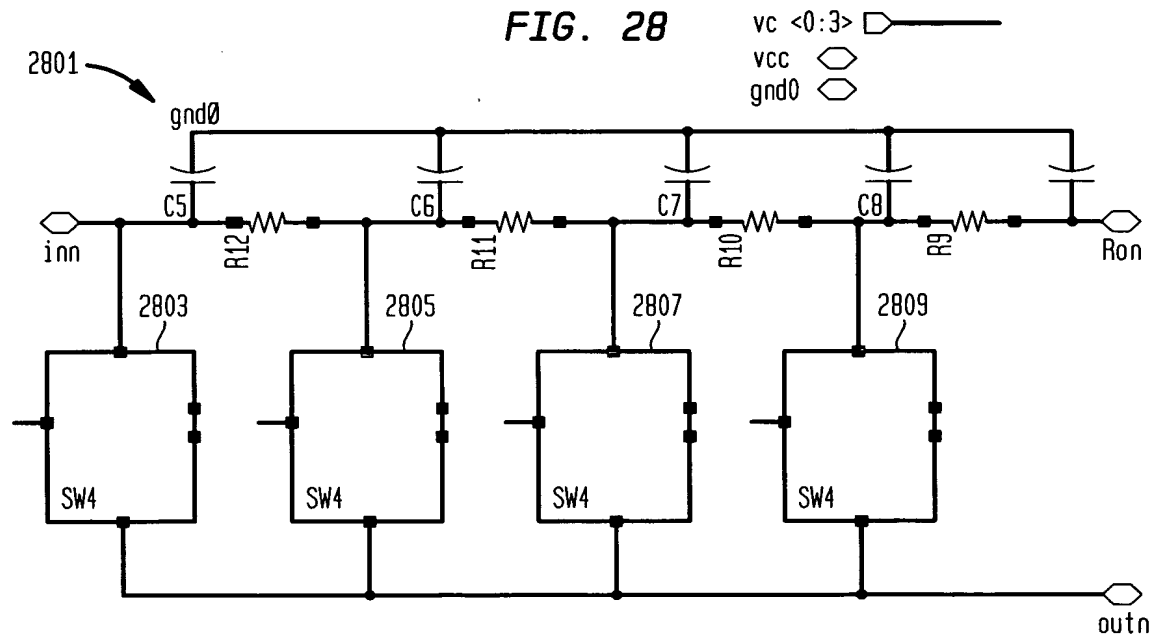
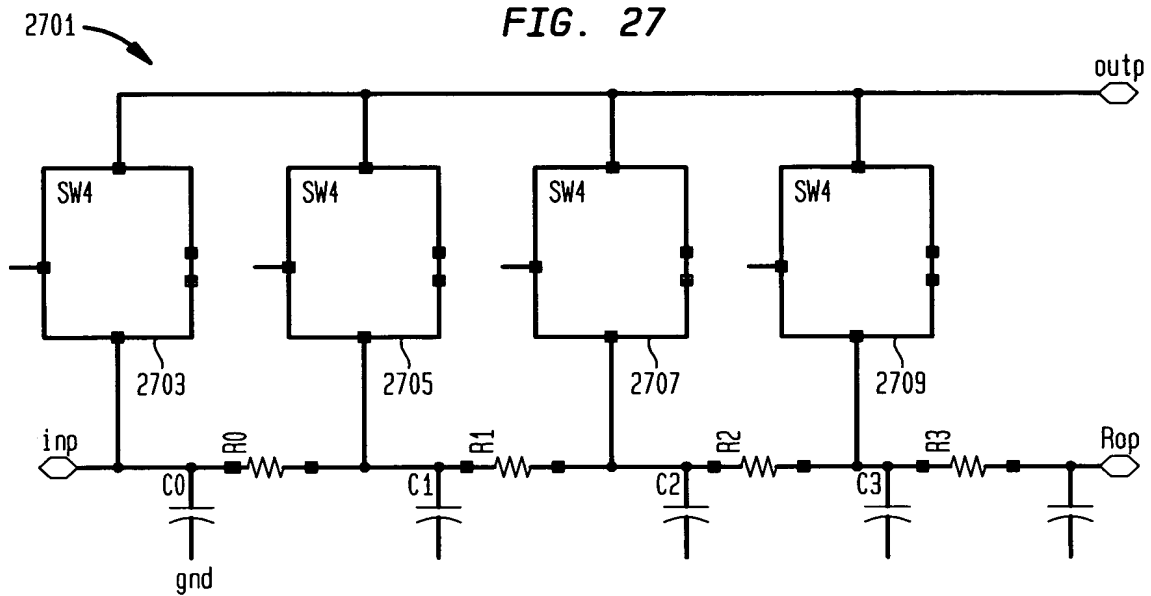
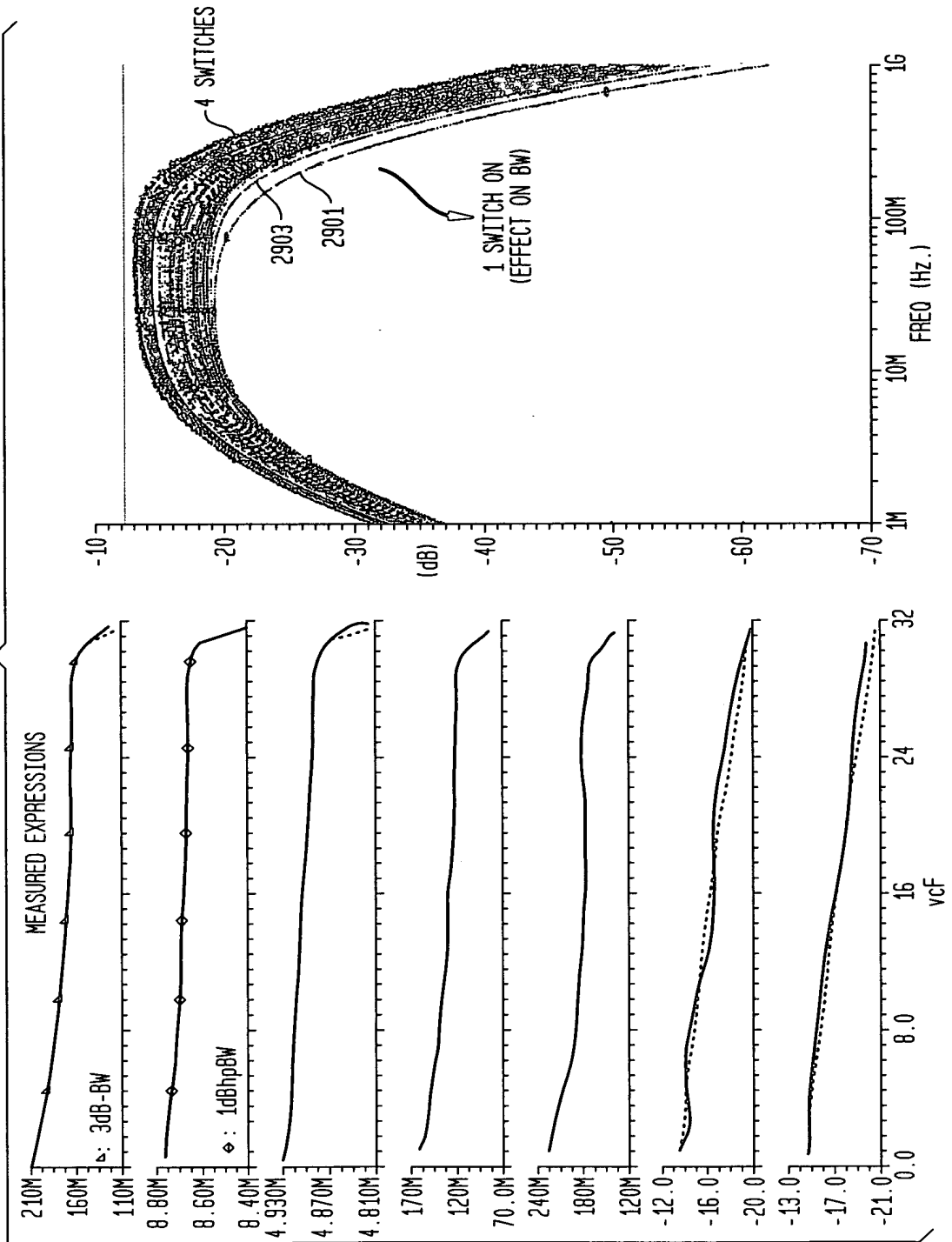
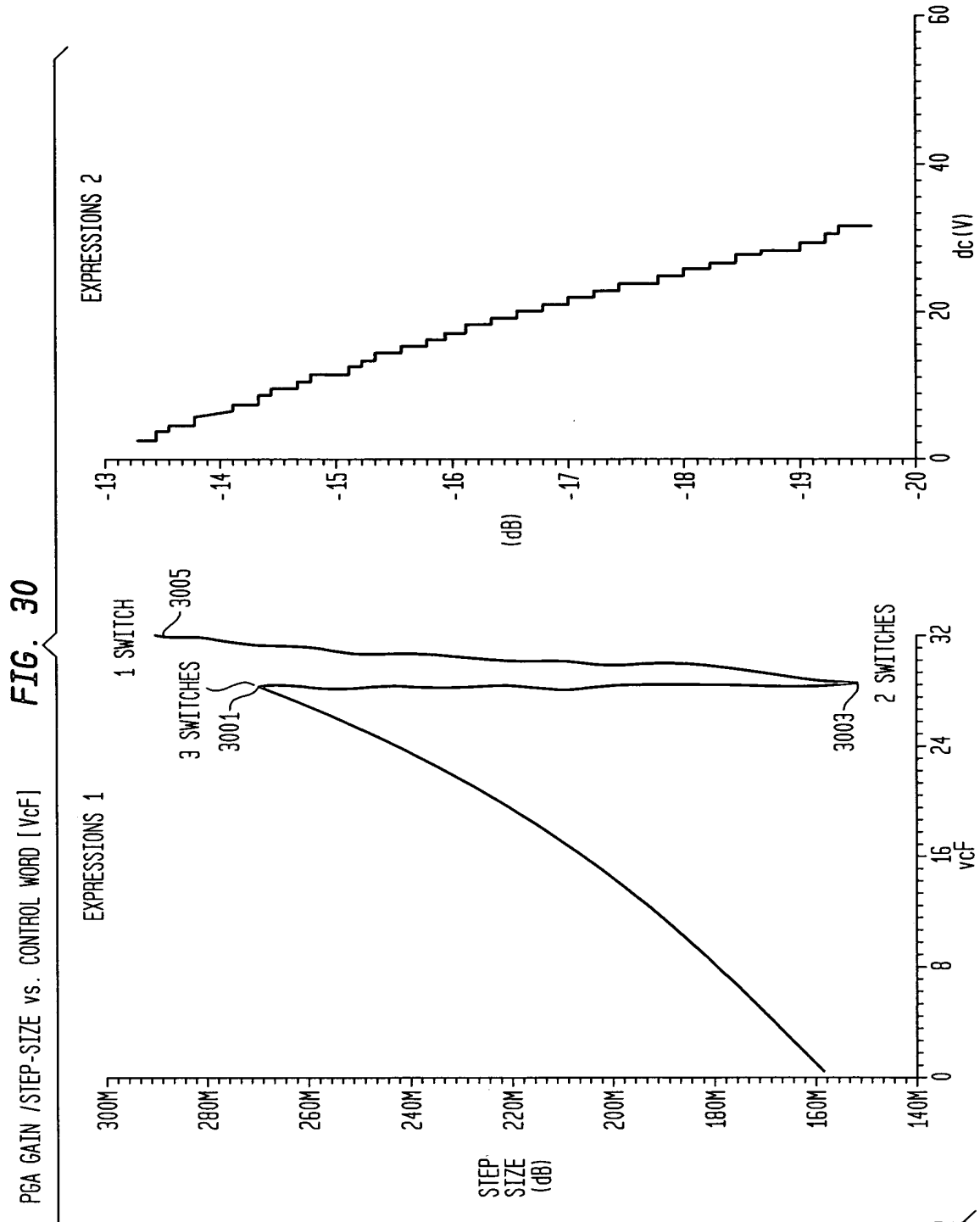


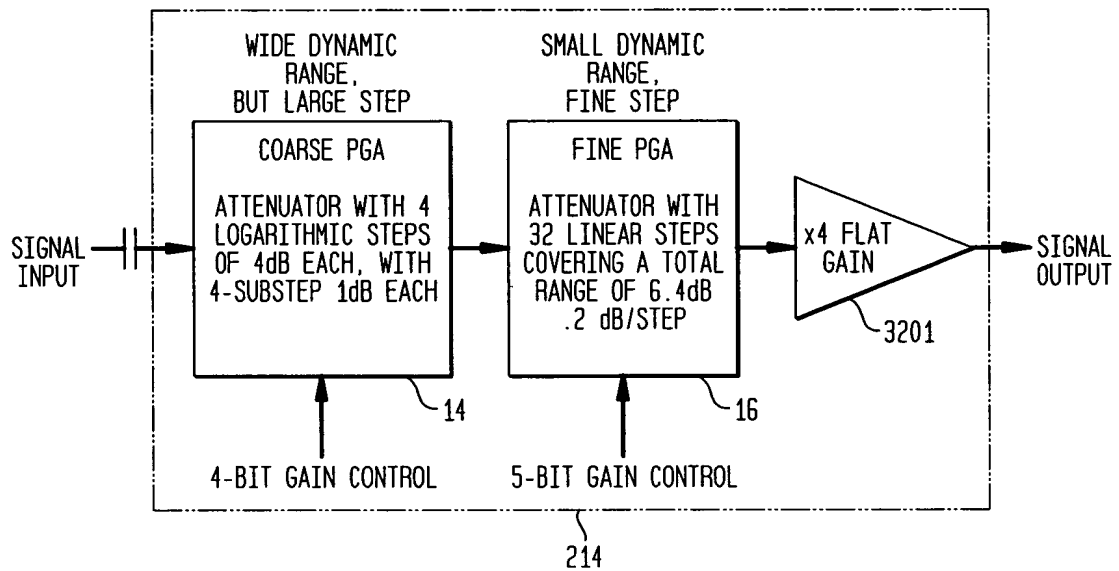
FIG. 29





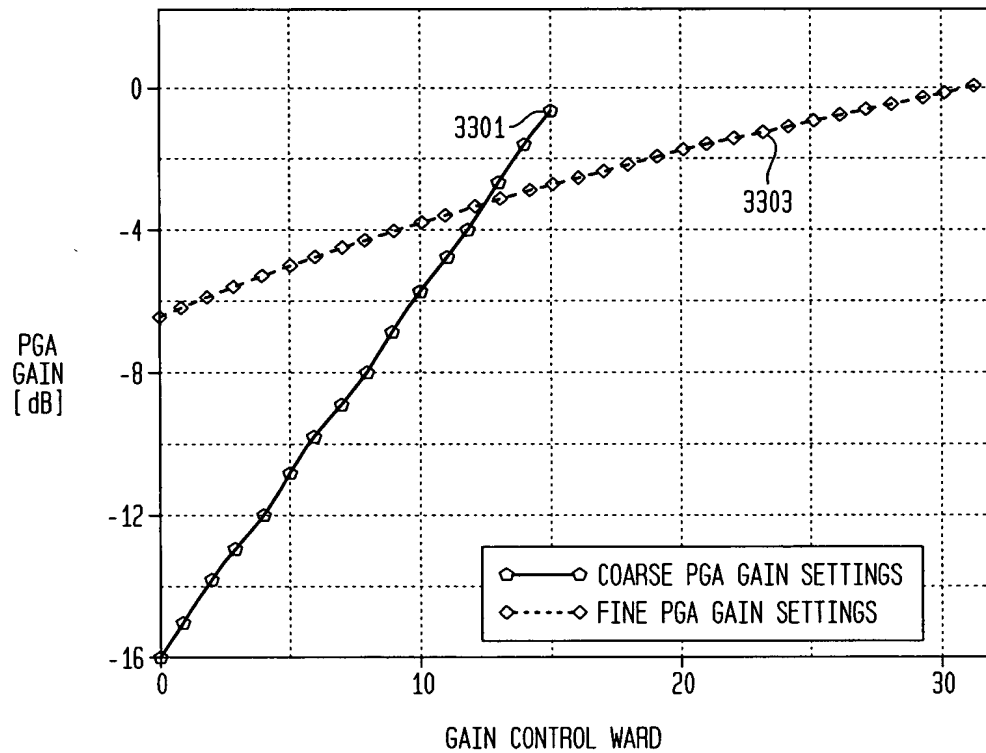
**FIG. 31**

PROGRAMMABLE GAIN AMPLIFIER (PGA)



**FIG. 32**

COARSE AND FINE PGA GAIN SETTINGS







**FIG. 34**

PEAK TO RMS RATIOS FOR 100Base-TX AND GIGABIT

CABLE LENGTH [m]	100Base TX	GIGABIT, 100 OHM	GIGABIT, 85 OHM	GIGABIT, 115 OHM
0	3.691281	4.193192	4.193192	4.193192
20	3.806628	4.501316	4.362110	4.291369
40	3.877284	4.528136	4.457336	4.429949
60	3.894216	4.733644	4.695307	4.646305
80	4.055372	4.878569	4.847844	4.810019
100	4.225522	4.983545	4.991296	4.968900
120	4.357733	5.134131	5.194401	5.154263
140	4.556012	5.266919	5.380943	5.366309
160	4.764462	-	-	-

$$\begin{aligned} \text{TARGET } E(|x|) &= \text{A/D CLIPPING LEVEL} \times (E(|x|)/\text{RMS}) / (\text{PEAK}/\text{RMS}) \\ &= 127 \times 0.7979/5.2 = 20 \end{aligned}$$